species factsheet

| species introduction|

Common name: Wolverine

Scientific name: *Gulo gulo*

The wolverine is the largest terrestrial member of the m*ustelid* family. It can be distinguished from the other members of the weasel group by its large body size and strong dental structure, which allows the animal to crush large bones. Wolverines are highly dependent on carcasses and are often called the 'Hyenas of the North'. Although a medium sized carnivore weighing not more than 20kg, wolverines are powerful hunters, especially in the winter-time when they are capable of bringing down large animals like reindeer. Looking like small bears with short legs with large and powerful paws, they are able to move through deep snow. Their short and rounded ears also reveal that the species is well adapted to a harsh climate. The coat colour is dark brown with a distinct band of light brown extending from the shoulders to the rump along each side of the body.

Throughout history wolverines have been regarded as mysterious creatures. The species' secretive lifestyle in the most remote areas has led to several misconceptions. In former times it was commonly believed that wolverines were born as bear cubs and when a female bear gave birth to four cubs, the fourth would become a wolverine. Wolverines have a circumpolar distribution from the boreal forests to the Arctic tundra, from Norway and east throughout Eurasia to Canada and the northern parts of the U.S.A. In Europe wolverines are found only in the mountain areas of the Fennoscandian peninsula as well as in northern Russia.

Wolverine scavenging on a carcass.

| status in the wild|

With a circumpolar distribution, the wolverine is considered as **Least Concern (LC**) in the global Red Data Book 2012. In Europe the wolverine is protected by the Berne Convention and the Rio Convention. Sweden and Finland are the only EU countries with a wild population of wolverines. The species is therefore protected by the EU's *Habitat Directive* in these two countries, which consequently have agreed to take the necessary steps to counteract degradation of the species' habitats. There are no reliable data of the wild wolverine population in Russia. Finland, which has a population of less than 200 animals, has listed the wolverine as **Critically Endangered (CR)**, whereas Norway with a population of approximately 370 animals, lists the wolverine as **Endangered (EN)**. Sweden, which is home to more than 800 wolverines, is currently the stronghold for the species in Europe and lists the species as **Vulnerable (VU)**.

Wolverine distribution in Fennoscandia

| species reproduction |

Wolverines are solitary animals and adult animals are seen together only during the mating season in late May tomid-June. Males take no part in rearing the offspring and a male may mate with several females. As with many mustelids, wolverines have delayed implantation. This is where the fertilized eggs remain in the blastocyst stage until implantation takes place in the early winter. The kits are therefore born during the coldest time of the year (February-March) in a den consisting of long and complex snow tunnels, often associated with fallen trees and logs. This may seem to be an inhospitable time to give birth for many Arctic and sub-Arctic animals, but not so for the wolverine.

Parturition is usually timed for maximum survival of the offspring when plenty of food is available. As wolverines are mainly scavengers depending on ungulate carcasses, food is more plentiful in winter. The kits have a natal weight of not more than 100g and are born blind with an almost white pelage. The litter size varies from one to four with an average size of two. Wolverine kits develop quickly but remain in the den until April-May when they start to

investigate their immediate surroundings. At the age of eight months they are fully grown and capable of an independent life. In Scandinavia, most of the females do not reproduce each year, but at two yearly intervals.

Wolverine kits have an almost white pelage

| species habitat |

Wolverines have a circumpolar distribution closely corresponding with the tundra and boreal zones of the northern hemisphere, where pine and spruce forests constitute their main habitats. Wolverines, however, demonstrate a broad habitat use where one of the core areas in Scandinavia is the open and treeless alpine zone. In the southern parts of its distribution, wolverines are mostly found in mountainous areas.

| species food |

As seen from the skull and the dental structure, wolverines are adapted to a scavenging lifestyle where reindeer carcasses constitute the most important food resource, especially in winter. Being a fairly poor hunter, the wolverine is often observed following the tracks of wolves, brown bears and lynx to obtain the remains from kills made by these more effective predators. The wolverine is an opportunistic feeder, responding quickly to temporary abundance or easily procurable food. Hares and small rodents like lemmings are therefore significant food resources, especially during the summer. Although wolverines are too large to survive on rodents only, a clear correlation has been found between rodent cycles and the number of reproducing wolverines in Scandinavia. Although a carnivore, wolverines also eat berries, fruit and insects.

| threats |

Although legally protected and with a clear, positive change in the political and public attitudes, from eradication to conservation, strong conflicts still remain amongst reindeer herders and sheep farmers. Illegal killing is the main threat to wolverines in all Nordic countries where the majority of all deaths among adult wolverines is caused by poaching. These estimates are supported by the Scandinavian Wolverine Project where it was found that 40% of all collared animals were lost due to poaching.

| conservation |

The history of wolverines in northern Europe is similar to that of the other large carnivores. An intensive eradication campaign in the early 20th century, with bounties paid by all states in the Nordic countries, resulted in fragmented populations and wolverines were gradually exterminated from the southern parts of Fennoscandia. Fortunately they managed to survive in the most remote upland areas of Norway, Sweden and Finland. Wolverine densities were at their lowest in the early 1960s until they finally were protected in Sweden (1969), Norway (1982) and Finland (1982). Despite legal protection, wolverines responded slowly to protection and did not re-occupy their former habitats as quickly as expected. In the early 1980s, the population in the Nordic countries hardly exceeded 250 animals.

Due to its threatened status in the wild, wolverines were included in the European Breeding Program, EEP, in 1994. During this century, the wild populations have recovered, mainly in Sweden, and the total population numbers close to 1,400 animals in the Fennoscandian peninsula. There are several factors which might have caused the expansions in Norway, and Sweden in particular, which currently holds the largest populations of wolverines in Europe. The increasing numbers can partly be explained through more effective surveys since the mid-1990s, when a new compensation scheme for losses of semi-domesticated reindeer was introduced. As the highest compensation nowadays is paid for actively reproducing carnivores, it is economically profitable to verify as many reproducing females as possible. This might have had an effect on the increasing number of active dens found, especially in Sweden, compared to previous population estimates.

| find out more |

www.wolverineproject.se

www.scandlynx.nina.no

Blomqvist, L. (2012): Husbandry manual for captive wolverines, Gulo gulo, 2012: Nordens Ark Foundation

Blomqvist, L. (2012): European studbook for wolverines, Gulo g. gulo. Volume 4. Nordens Ark Foundation

Blomqvist, L. (2013): Number of wolverines in EEP approaches 100 individuals. Nordens Ark Ann. Rep. 2012: 21-25. Nordens Ark Foundation

| this factsheet has been prepared by: Leif Blomqvist, EEP Coordinator wolverines, Nordens Ark, Sweden |